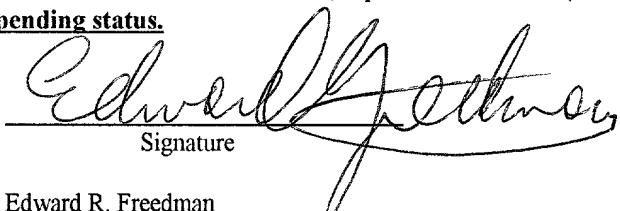
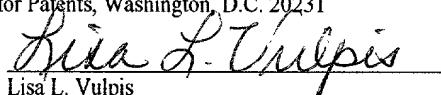


FORM PCT 1390 REV. 5/93	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NO PARTZSCH ET AL.-2 (PCT)
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>09/831965</b>	
INTERNATIONAL APPLICATION NO. PCT/DE00/03203	INTERNATIONAL FILING DATE 14 SEPTEMBER 2000	PRIORITY DATE CLAIMED 17 SEPTEMBER 1999	
TITLE OF INVENTION <b>CORONA SHIELDING ARRANGEMENT AND METHOD FOR THE PRODUCTION THEREOF</b>			
APPLICANT(S) FOR DO/EO/US <b>THOMAS PARTZSCH ET AL.</b>			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:			
1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.			
2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.			
3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371 (f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(l).			
4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.			
5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))			
a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau)			
b. <input type="checkbox"/> has been transmitted by the International Bureau.			
c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).			
6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)).			
7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).			
a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).			
b. <input type="checkbox"/> have been transmitted by the International Bureau.			
c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has <b>NOT</b> expired.			
d. <input type="checkbox"/> have not been made and will not be made.			
8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).			
9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).			
10. <input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).			
<b>Items 11. to 16. below concern other document(s) or information included:</b>			
11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.			
12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.			
13. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment.			
<input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.			
14. <input type="checkbox"/> A substitute specification.			
15. <input type="checkbox"/> A change of power of attorney and/or address letter.			
16. <input checked="" type="checkbox"/> Other items or information:			
Applicants Claim Priority under 35 U.S.C. §119 of German Application No. 199 44 664.4 filed September 17, 1999. Applicant Claims Priority under 35 U.S.C. §120 of: PCT/DE00/03203 filed September 14, 2000.			

APPLICATION NO. (if known, see 37 CFR 1.5)	09/831965		INTERNATIONAL APPLICATION NO PCT/DE00/03203	ATTORNEY'S DOCKET NO PARTZSCH ET AL.-2
<input checked="" type="checkbox"/> The following fees are submitted: <b>Basic National Fee (37 CFR 1.492(a)(1)-(5)):</b> Search Report has been prepared by the EPO or JPO.....\$860.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) .....\$690.00 Neither international preliminary examination fee paid (37 CFR 1.82) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO.....\$1,000.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4).....\$100.00		CALCULATIONS		PTO USE ONLY
		\$ 860.00		
ENTER APPROPRIATE BASIC FEE AMOUNT =				
Surcharge of \$130.00 for furnishing the oath or declaration later than 20 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				
Claims	Number Filed	Number Extra	Rate	
Total Claims	3 - 20 =	- 0 -	X \$18.00	\$
Independent Claims	1 - 3 =	- 0 -	X \$80.00	\$
Multiple dependent claim(s) (if applicable)			+ \$270.00	\$
TOTAL OF ABOVE CALCULATIONS =				\$ 860.00
Reduction by 1/2 for Small Entity status.				\$ 430.00
SUBTOTAL =				\$ 430.00
Processing fee of \$130.00 for furnishing the English translation later than 20 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				
TOTAL NATIONAL FEE =				\$ 430.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				
TOTAL FEES ENCLOSED =				\$ 430.00
				Amount to be: refunded
				\$ charged
<input checked="" type="checkbox"/> Applicant claims Small Entity status. a. <input checked="" type="checkbox"/> A check in the amount of \$ 430.00 to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. 03-2468 in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 03-2468. A duplicate copy of this sheet is enclosed.				
<b>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</b>				
SEND ALL CORRESPONDENCE TO: COLLARD & ROE, P.C. 1077 Northern Boulevard Roslyn, New York 11576-1696 (516) 365-9802				
 Signature Edward R. Freedman Reg. No. 26,048				
Express Mail No. <u>EL 769 391 441 US</u> Date of Deposit <u>May 16, 2001</u>				
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the Ass't. Commissioner for Patents, Washington, D.C. 20231				
 Lisa L. Vulpis				

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: THOMAS PARTZSCH ET AL. - 2 (PCT)

PCT NO.: PCT/DE00/03203

FILED: SEPTEMBER 14, 2000

TITLE: CORONA SHIELDING ARRANGEMENT AND METHOD FOR THE PRODUCTION THEREOF

PRELIMINARY AMENDMENT

BOX PCT  
Ass't. Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Preliminary to the initial Office Action, please amend the above-identified application as follows:

IN THE SPECIFICATION:

On Page 1, after the title and before line 1, please insert the following paragraphs:

--CROSS REFERENCE TO RELATED APPLICATIONS

Applicants claim priority under 35 U.S.C. §119 of German Application No. 199 44 664.4 filed September 17, 1999. Applicant also claims priority under 35 U.S.C. §120 of PCT/DE00/03203 filed September 14, 2000. The international application under PCT article 21(2) was not published in English.--

REMARKS

By this Preliminary Amendment, the application has been amended to conform with U.S. practice, the cross-reference to related applications has been inserted on page 1. No new matter has been introduced. Entry of this amendment is respectfully requested.

Respectfully submitted,  
THOMAS PARTZSCH ET AL. - 2 (PCT)

  
Allison C. Collard Reg. No. 22,532  
Edward R. Freedman, Reg. No. 26,048  
Attorneys for Applicants

COLLARD & ROE, P.C.  
1077 Northern Boulevard  
Roslyn, New York 11576  
(516) 365-9802  
erf:jc

Express Mail No. EL 769 391 441 US  
Date of Deposit May 16, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10, on the date indicated above, and is addressed to the Ass't. Commissioner for Patents, Washington, D.C. 20231

  
Lisa L. Vulpis

**Corona shielding arrangement and techniques to fabricate it**

This invention relates to a corona shielding arrangement for the stator winding of rotating high-voltage machines with round-wire winding combined with a slot portion insulation

5 consisting of a slot liner with a conducting slot-portion corona shielding, a semi-conducting overhang corona shielding, and a technique to fabricate the corona shielding arrangement.

Overhang corona shielding arrangements in high-voltage machines with former windings made of rectangular wire and sleeve insulation with semi-conducting corona shielding

10 varnish or semi-conducting corona shielding tape to improve the voltage distribution at the slot end are known in a large variety of designs.

DE 30 45 462 describes a solution wherein a shielding base material, consisting of semi-conducting material, is wound onto the ground insulation as overhang corona shielding and

15 subsequently impregnated.

DE 42 18 928 comprises an overhang corona shielding arrangement wherein a semi-conducting corona shielding tape is applied on top of the ground insulation with the overlapping decreasing towards the end of the bar.

20

In DE 196 34 578 an overhang corona shielding arrangement is described wherein the voltage distribution is improved by using grading rings (equipotential rings) on the insulation in the area of the slot end.

25 The above referenced arrangements or techniques have several disadvantages:

In order to obtain the specified overlapping and to satisfy the technological specifications, the semi-conducting corona shielding tape must be applied very carefully by wrapping.

Folds or gaps in the wrapping are inadmissible. However, it is difficult to meet this requirement, particularly when a tape of greater length is applied. Additional impregnation

5 to obtain the desired overhang corona shielding effect requires extra technological work.

This is also true of the proposed grading arrangements.

The known coatings with semi-conducting corona shielding varnishes which are provided to obtain the desired overhang corona shielding cannot be applied at all in the case of a slot

10 portion insulation which consists of panel-type insulating material because they must be

applied by spreading or spraying prior to impregnating them with liquid insulating medium

at the slot end, and in doing so they penetrate into the ground insulation in the overlapping

zone of the panel-type insulating material, usually in the area of the slot opening, where they

unacceptably shorten the creepage path between winding wire and laminated core.

15

When using semi-conducting corona shielding tapes to provide the overhang corona

shielding, any contacting of the tapes with the conductive corona shielding of the slot

portion is problematic because at high voltages poor contacting results in partial discharges,

which again, further worsens the contact making so that finally the overhang corona

20 shielding becomes ineffective. In all common arrangements used to date, the point of

contact is located outside the laminated stator core.

It is an object of this invention to provide a corona shielding arrangement and a technique to fabricate it relating to the stator winding of rotating high-voltage machines with round-wire

25 winding and slot lining, thus providing an overhang corona shielding which safely controls

all electric stresses occurring at the slot end, primarily during power-frequency and impulse voltage testing as well as during switching operations during service, and which provides good contact making between slot portion and overhang corona shielding thus causing higher partial-discharge inception voltages, and which reduces material consumption and

5 time required for fabricating the overhang corona shielding of the high-voltage winding.

In accordance with the present invention, the object is achieved by the characteristic features of Claim 1 and Claim 2. According to this invention the corona shielding arrangement for the stator winding of rotating high-voltage machines with round-wire winding, slot lining and corona shielding material is fabricated so that the slot lining on the side facing the

10 laminated core consists of conducting and semi-conducting corona shielding materials arranged both outside the laminated stator core and inside the laminated stator core with the semi-conducting material used for the overhang corona shielding consisting of monoplane semi-conducting corona shielding material, cut into strips, and arranged on either side at slot

15 level and, if required, also on the bottom of the slot on the slot lining. The point of contact between conducting and semi-conducting corona shielding materials is located within the laminated stator core. Optionally, the slot lining may consist of one or several layers.

According to the suggested technique the semi-conducting corona shielding materials to be

20 arranged at the conducting corona-shielding material are glued on only partially. The semi-conducting corona shielding materials may also be inserted in the slot ends during or after arrangement of the slot lining. Subsequently the winding is drop-fed into the slots through the slot opening and the slot closed by folding the slot lining and inserting the slot closing strip. Then the end winding is wrapped whereby the slot lining protruding from the slot is

25 also insulated up to the laminated stator core. In doing so the semi-conducting corona

shielding material must be kept away from the slot lining. Upon completion of this operation, the semi-conducting corona shielding material is applied to the end winding insulation and fastened with adhesive tape or cover tape which is placed on the end winding insulation.

5

In a preferred arrangement the conducting corona shielding material is glued onto the slot lining covering the surface either partially and/or fully. Preferably, the conducting corona shielding material may be of the same length as the laminated stator core.

10 According to this invention, an overhang corona shielding does not require complete wrapping of the round-wire windings in the zone of the end winding with overhang corona shielding tape. Favourable voltage distribution is obtained throughout the entire insulation in the area of the slot end. Partial discharges are reliably limited and it is now possible to satisfy the typical testing conditions for high-voltage machines without causing any damage

15 to the winding insulation. Due to the strip-type design of the overhang corona shielding, fabricated according to the present invention, the invention guarantees effective potential grading for round-wire windings with slot lining.

20 In the following the invention will be explained in greater detail in a preferred embodiment describing a corona shielding arrangement for the stator winding of rotating high-voltage machines wherein the stator winding which is executed as a blank round-wire winding is inserted in slots of a laminated stator core with straight slot bottom. According to the present invention, strips of semi-conducting corona shielding material are arranged on the two sides of the slot and on the slot bottom. These three strips consisting of semi-conducting corona shielding material are arranged on top of the conducting corona shielding material of the slot

so that they are contacting each other within the laminated stator core. The said conducting corona shielding material is arranged on the slot lining. It may either be inserted only or alternatively glued to the said slot lining. Subsequently, the slot lining is inserted in the stator slot together with the corona shielding fabricated according to this invention.

- 5 Depending on electrical stresses to be expected, the slot lining may consist of one or several layers.

Next the winding is fed-in and the slot closed. Now the three strips of the semi-conducting corona shielding material must be kept away from the slot lining. Then the end winding is

- 10 wrapped with insulating tapes wherein the slot lining protruding from the slot is being insulated up to the laminated stator core. Following this operation, the three strips of the said semi-conducting corona shielding material are placed onto the insulation of the end winding and fastened with adhesive tape or cover tape which is wrapped on top of said end winding insulation.

15

When the slot bottom is rounded, only two strips of the semi-conducting corona shielding material are arranged on top of the conducting corona shielding material of the slot. The width of said semi-conducting corona shielding material shall be preferably equivalent to the height of the straight slot slope. Here again, the material should preferably be glued onto 20 the conducting corona shielding material only in some points to ensure contacting.

Subsequently, as is known, the stator winding is impregnated with resin using a common impregnating procedure.

**Claims:**

1. Corona shielding arrangement for the stator winding of rotating high-voltage machines with round-wire winding, slot portion insulation and both conducting and semi-conducting corona shielding material, characterized in that the slot portion insulation is provided with conducting and semi-conducting corona shielding materials both outside and inside the laminated stator core, wherein the point of contact between the conducting and the semi-conducting corona shielding material is located within the stator core and
- 5      the corona shielding material is applied to a slot lining which consists of one or several layers.
- 10     2. Technique to fabricate a corona shielding arrangement according to claim 1, characterized in that
- 15      – the semi-conducting corona shielding materials to be applied on the conducting corona shielding material inside the laminated stator core for voltage grading are either glued on the slot liner only partially before installing the liner in the slot or are inserted into the slot ends together with the conducting corona shielding material after installing the slot liner,
- 20      – the winding is drop-fed,
- in this process, the semi-conducting corona shielding material is kept away from the slot liner
- the end winding is insulated up to the stator core, including the slot liner, which protrudes from the slot;

- the semi-conducting corona shielding material is applied to the end winding insulation after the end winding has been insulated, and in that
- the corona shielding material is fastened either by means of an adhesive fleece or by means of the cover tape.

5

3. Corona shielding arrangement for the stator winding of rotating high-voltage machines

according to claim 1,

characterized in that

10 – the conducting corona shielding material has preferably exactly the length of the  
laminated stator core.

PCT/EP2017/06510

**Summary**

Corona shielding arrangement and techniques to fabricate it

The invention relates to a corona shielding arrangement for the stator winding of rotating high-voltage machines with round-wire winding combined with a slot portion insulation and a technique

- 5 to fabricate the corona shielding arrangement. It is an object of this invention to provide an overhang corona shielding and a technique for its fabrication relating to a stator winding which safely controls the electric stresses occurring at the slot end, primarily during power-frequency and impulse voltage testing as well as during switching operations during service. It is a further object of this invention to improve the contact between slot portion and overhang corona shielding and to
- 10 allow higher partial-discharge inception voltages. According to the present invention the corona shielding arrangement for the stator winding is designed so that conducting and semi-conducting corona shielding materials are arranged both outside the laminated stator core and inside the laminated stator core wherein the semi-conducting material used for the overhang corona shielding consists of monoplane semi-conducting corona shielding material, cut into strips, and arranged on
- 15 either side at slot level and, if required, also on the bottom of the slot on top of the slot lining. The point of contact between conducting and semi-conducting corona shielding material is located within the laminated stator core. According to the present technique the semi-conducting corona shielding materials to be arranged on the conducting corona-shielding material are glued on only partially. Subsequently the winding is drop-fed into the slots through the slot opening. Then the end
- 20 winding is wrapped wherein the slot lining protruding from the slot is also insulated up to the laminated stator core. In doing so the semi-conducting corona shielding material must be kept away from the slot lining. Upon completion of this operation, the semi-conducting corona shielding material is applied to the end winding insulation and fastened with adhesive tape or cover tape which is applied on top of the end winding insulation.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**CORONA SHIELDING ARRANGEMENT AND TECHNIQUES TO FABRICATE IT**

the specification of which (check only one item below):

is attached hereto.

was filed as United States application

Serial No. \_\_\_\_\_

on \_\_\_\_\_

and was amended

on \_\_\_\_\_ (if applicable).

was filed as PCT international application

Number PCT/DE00/03203

on September 14, 2000

and was amended under PCT Article 19

on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed

**PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:**

COUNTRY (if PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
GERMANY	199 44 664.4	17 SEPTEMBER 1999	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

MAY-10-2001 17:11

COLLARD & ROE

516 365 9805 P.03/04

**COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY**  
(Includes Reference to PCT International Applications)

ATTORNEY'S DOCKET NUMBER  
PARTZSCH ET AL-2 PCT

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120.

U.S. APPLICATIONS		STATUS (Check One)		
U.S. APPLICATION NUMBER	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.				
PCT APPLICATION NO.	PCT FILING DATE	U.S. SERIAL NUMBERS ASSIGNED (If any)		
10201000000000000000	2010-01-01			

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration numbers): **KURT KELMAN**, Registration No. 18,628  
ALLISON C. COLLARD, Registration No. 22,532; **FREDERICK J. DORCHAK**, Registration No. 29,298  
EDWARD R. FREEDMAN, Registration No. 26,048; **WILLIAM C. COLLARD**, Registration No. 38,411  
ELIZABETH COLLARD RICHTER, Registration No. 35,103; **REINE H. GLANZ**, Registration No. 46,728

Send Correspondence to: COLLARD & ROE, P.C.  
1077 Northern Boulevard  
Roslyn, New York 11576 Customer No. 25889 Direct Telephone Calls to:  
*(name and telephone number)*  
(516) 365-9802

2 5 0	FULL NAME OF INVENTOR <u>PARTZSCH</u>	FAMILY NAME <u>PARTZSCH</u>	FIRST GIVEN NAME <u>THOMAS</u>	SECOND GIVEN NAME
1	RESIDENCE & CITIZENSHIP <u>CITY DÖBELN</u>		STATE OR FOREIGN COUNTRY <u>GERMANY</u>	<i>DK</i> COUNTRY OF CITIZENSHIP <u>GERMANY</u>
2	POST OFFICE ADDRESS <u>WALDHEIMER STR. 65</u>		CITY <u>D-04720 DÖBELN</u>	STATE & ZIP CODE/COUNTRY <u>GERMANY</u>
2 0	FULL NAME OF INVENTOR <u>GOLBIG</u>	FAMILY NAME <u>GOLBIG</u>	FIRST GIVEN NAME <u>WOLFGANG</u>	SECOND GIVEN NAME
2	RESIDENCE & CITIZENSHIP <u>CITY DRESDEN</u>		STATE OR FOREIGN COUNTRY <u>GERMANY</u>	<i>DA</i> COUNTRY OF CITIZENSHIP <u>GERMANY</u>
2	POST OFFICE ADDRESS <u>CROTTENDORFER STR. 9</u>		CITY <u>D-01279 DRESDEN</u>	STATE & ZIP CODE/COUNTRY <u>GERMANY</u>
2 0	FULL NAME OF INVENTOR <u>WIELAND</u>	FAMILY NAME <u>WIELAND</u>	FIRST GIVEN NAME <u>GÜNTHER</u>	SECOND GIVEN NAME
3	RESIDENCE & CITIZENSHIP <u>CITY DRESDEN</u>		STATE OR FOREIGN COUNTRY <u>GERMANY</u>	<i>DA</i> COUNTRY OF CITIZENSHIP <u>GERMANY</u>
3	POST OFFICE ADDRESS <u>SCHILFWEG 20</u>		CITY <u>D-01237 DRESDEN</u>	STATE & ZIP CODE/COUNTRY <u>GERMANY</u>

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
		
DATE 	DATE 	DATE 